AMSAT News Service Weekly Bulletins
Issue: ANS-011
Date: 1998-01-11
Sources: amsat-ans-1998-ans-011-weekly.txt

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WT0N's Homepage http://www.qsl.net/wt0n
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SB SAT @ AMSAT $ANS-011.01
RS-17 DECLARED DEAD

HR AMSAT NEWS SERVICE BULLETIN 011.01 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 11, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-011.01

It's official. The Sputnik PS2/RS-17 mini-satellite ceased transmitting on December 29, 1997. The little satellite, a one-third scale replica of the original Sputnik 1, beep-beeped its way around the globe for 55 days, more than two weeks longer than it had been projected to last. The 100-mW transmitter was powered by lithium batteries.

The Sputnik PS-2 was launched by hand from the Russian Mir space station on November 4, 1997, to commemorate the 40th anniversary of the launching of the original Sputnik by the USSR in 1957. The original Sputnik only transmitted for about one month.

The Sputnik PS2 beacon, on 145.82, was widely monitored and recorded around the world. The satellite was fabricated by students in Russian and on France's Reunion Island. Sputnik 40 Years, which sponsored the satellite project, said the last known recordings of the Sputnik PS2 beacon were made on December 29 at approximately 2100 UTC by a ham in Washington and by FR1AJ on Reunion Island. At the time, the data indicated an internal temperature of 40 degrees Celsius.

Those tracking the satellite reported that the Sputnik PS2's beacon signal had continued to get weaker as the end approached. Even after the beep-beep ceased, however, the satellite's unmodulated oscillator continued to transmit for a while longer.

Reception reports go to The Radio Club of Jules Reydellet school on Reunion Island. Those whose reports are confirmed will receive an approximately 6x9-inch color certificate on high-quality paper with number identification and the radio club stamp. Requests for these certificates should be made only by letter with an SASE (6x9 inch) and two (2) IRCs. Do not send requests via e-mail. The mailing address is FR5KJ Radio Club, 103 Rue de la Republique, 97 489 Saint Denis Cedex, Reunion Island.

[ANS thanks the ARRL for the news report.]

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SB SAT @ AMSAT $ANS-011.02
MIR's LIFE EXTENDED

HR AMSAT NEWS SERVICE BULLETIN 011.02 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 11, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-011.02

The 12-year-old Russian Mir space station may stay in orbit until the first components of the International Space Station are in place in 1999. That's a few months longer than Mir was supposed to stay up. The first ISS units are set to be launched later this year. Hams are scheduled to be among the first crew members to populate the ISS, but the US presence aboard Mir comes to an end this June.

Us astronaut David Wolf, KC5VPF, now aboard Mir, is scheduled to be replaced later this month by Australian-born US astronaut Andy Thomas, KD5CHF. Two new Russian crew members, both hams, are due to arrive at month's end. The Russian cosmonauts are Talgat Musabayev, RO3FT, and Nikolai Budarin, RV3FB. Wolf has been on Mir since late September. Thomas will work aboard Mir until June.

Wolf's research schedule has allowed him little spare time to use the ham radio equipment aboard Mir. The packet system aboard the space station has been experiencing problems because the crew has not had time to set up the correct parameters for the new TNC aboard Mir. This week, Wolf, 41, monitored and filmed operations from inside MIR's main module as his two cosmonaut crewmates conducted a space walk to check a leaky hatch and to retrieve some equipment. On January 14, Wolf and cosmonaut Anatoly Solovyov will do a spacewalk to recover some experiments.

[ANS thanks the ARRL for this information.]

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SB SAT @ AMSAT $ANS-011.03
STS-89 ORBITAL DATA

HR AMSAT NEWS SERVICE BULLETIN 011.03 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 11, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-011.03

Ken Ernandes, N2WWD, has uploaded
STS-89 nominal orbital data to the AMSAT Web site. This data represents the initial planned orbit for STS-89 based on the following planned launch time:

23-JAN-98 / 02:48:16 UTC

The AMSAT Web site data will be updated to reflect any changes to the planned orbit including those due to changes in the launch time. As always, this data will also be maintained during the mission with data reflecting the actual orbit of the STS-89 spacecraft and the Shuttle/Mir complex. The AMSAT Web site Shuttle Orbital Data is at:

http://www.amsat.org/amsat/sarex/orbit.html

The alternate Web site for Shuttle orbital data is:

http://www.mindspring.com/~n2wwd

The STS-89 nominal two-line Keplerian elements are:

STS-89
1 99989U 98023.14663194 .00037821 59761-8 88592-4 0 17
2 99989 51.6623 59.5301 0017156 330.4488 219.0071 15.95897611 15

Note that "99989" is a temporary catalog number. A permanent catalog number and international designator will be assigned when STS-89 has launched.

[ANS thanks Ken Ernandes, N2WWD, for this report.]

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SB SAT @ AMSAT $ANS-011.04
FOLLOW-UP TO HOUSTON NET

HR AMSAT NEWS SERVICE BULLETIN 011.04 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 11, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-011.04

Well if it was missed, the 200th Houston AMSAT Net was one to listen to. One hour of the best information that can be found. The Net contained important up to the minute information about P3D and other projects.

The evening had interviews with Bill Tynan, W3XO, AMSAT President talking about P3D and the future of satellites.
Frank Bauer, KA3HDO, AMSAT Vice President of Manned Space Flight talked about the Lunar Prospector from Goddard Mission Control and also about ham radio equipment aboard the International Space Station
Lou McFadin, W5DID, AMSAT P3D Lab Manager spoke about the construction of the satellite. Stan Wood, WA4NFY, AMSAT Board of Directors member and Vice President for Engineering, as well as a member of the team in Orlando, talked about tests of the antennas and other phases of construction of the satellite. Finally, Keith Baker, KB1SF, AMSAT Executive Vice President talking about launch possibilities of P3D.

A Real Audio copy of the interview and net can be listened to by connecting to the Houston AMSAT Net web site and clicking on the "200th Net". The web site address is http://www.amsatnet.com

[ANS thanks Bruce KK5DO, Net Producer, AMSAT Area Coordinator, for this info.]

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SB SAT @ AMSAT $ANS-011.05
SKN BEST FIST NOMINATIONS

HR AMSAT NEWS SERVICE BULLETIN 011.05 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 11, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-011.05

Ray Soifer, W2RS, tells the Amsat News Service that it's time to send out in nominations for Best Fist in this year's SKN on OSCAR. Please address it via e-mail to <w2rs@amsat.org, via packet radio to W2RS @ WA2SNA.NJ.USA.NA or to W2RS @ GB7HSN.#32.GBR.EU, or via snail-mail to W2RS' Callbook address. The list of winners will be published via ANS in early February.

[ANS thanks Ray Soifer, W2RS, for this reminder]

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SB SAT @ AMSAT $ANS-011.06
WEEKLY SATELLITE REPORT PT 1

HR AMSAT NEWS SERVICE BULLETIN 011.06 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 11, 1998
TO ALL RADIO AMATEURS BT

BID: $ANS-011.06

MIR
American astronaut David Wolf, KC5VPF, will be replaced by Andy Thomas, KD5CHF, During the January STS-89 Mission. The PMS 2-meter radio station was temporarily moved from the core module and installed in the Priroda Module. This move was performed to take advantage of the backup antenna.
The crew also installed a new modem a few weeks ago. But due to the crews heavy work load, all of the TNC parameters have not been properly configured. Mirex would like the stations monitoring the PMS to please be patient while they make adjustments. The PMS is NOT fully operational at this time.

During the recent space walk, the crew was planning on examining the primary PMS antenna located on the Mir-core module, If time permits. The crew suspects there may be a loose coax cable to the primary PMS antenna. If the antenna checks out fine, the crew will still leave the PMS station connected to the backup antenna until the March time frame. This is because the crew will be very busy with many other experiments and will not have much time for a low priority experiment such as the PMS.

The only limitation they have with the current backup antenna, is the Diplexor filter which is required for the SAFEX and PMS to share the same antenna. This would prevent any 70 cm experimentation from the Kenwood TM-733.
[ANS thanks the MIREX team for this information]

SAFEX, MIR 70 cm Repeater (Uplink 435.750 MHz FM, Downlink 437.950 MHz FM, subaudible tone 141.3 Hz)
During last weeks momentary Mir attitude control computer shut-down. The Mir crew temporarily shutdown the Amateur Radio station for a few days. The PMS system was turned back on, but it is not known when the crew plans on turning on the SAFEX Repeater.

MIREX has created an Internet Web page containing information regarding Mir and the various Amateur Radio experiments taking place from the space station. The pages are still "under construction", but some good information can be gathered from what has been put together. URLs include the following:

http://www.ik1sld.org/mirex.htm OR
http://www.ik1sld.org/mirex

http://www.geocities.com/~ik1sld/mirex.htm OR
http://www.geocities.com/~ik1sld/mirex
[ANS thanks the MIREX team for this information]

RS-12
(Uplink, 145.91-145.95 MHz CW/SSB, Downlink 29.41-29.45 MHz)
Operational, now in mode KA.

RS-15
(Uplink 145.858-145.898 MHz CW/SSB, Downlink 29.354-29.394 MHz CW/SSB)
Operational.

RS-16
At this time only the beacons are on.
Transponder information on RS-16.
 Uplink = 145.915 - 145.948 MHz
 Downlink = 29.415 - 29.448 MHz
 Beacons = 29.408 and 29.451 MHz
 Pwr 29 MHz Down = 1.2 W /4 W

 Beacon 1 = 435.504 MHz

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 Beacon 2 = 435.548 MHz
 Pwr 435 MHz Beacons = 1.6 W

RS-17
Not Operational. RS-17 has been officially declared
dead. New Sputnik-40 QSL Address QSL Information is as follows:
QSL Information for SWL (Short Wave Listener)

Sergey Samburov (RV3DR)
P.O. Box 73
Korolev-10 City
141070, Russia

There is another address given for QSLing on the Sputnik home page
(http://www.oceanes.fr/~fr5fc/angspoutnik.html , the English
language version), which states under "Listeners" and I quote: "PSE send
your reports (envelope + IRC) at FR5KJ radio club. FR5KJ
radio club will send you back a diploma.

FR5KJ radio club
College Jules Reydellet
103 rue de la Republique
97 489 Saint Denis Cedex
Reunion Island.

[ANS thanks the MIREX team for this information]

AO-10
(Uplink 435.030-435.18 MHz CW/LSB, Downlink 145.975-145.825 MHz
CW/USB)
Operational.

AO-27
(Uplink 145.85 MHz FM, Downlink 436.792 MHz FM)
Operational
[ANS thanks Michael Wyrick, N4USI, AO-27 Control-op, for this update]

FO-20
(Uplink 145.9-146.0 MHz CW/LSB, Downlink 435.8-435.9 MHz CW/USB)
Operational. FO-20 in mode JA continuously.
FO-20, like many Leo's is in a "sun synchronous" orbit. The precession in
the RAAN of its orbit due to the earth's oblateness matches the earth's
rotation around the sun so that FO-20 always has about 33 minutes of
eclipse time each orbit and the rest in sunshine. A sun synchronous orbit
is a retrograde LEO polar orbit with an inclination of about 98 degrees.
At this inclination RAAN precession = 360 degrees in 365 days. The
stability in temperature and solar energy is, needless to say, very
helpful. The ratio of eclipse to sunlight can be adjusted by varying
initial orbital elements. FO-29, for example, is virtually always in
sunlight, UO-11 has about 22 minutes of eclipse, most seem to run about 33
minutes eclipse per orbit.

This also means that FO-20 (and other sun synchronous sats) appear at your
location at about the same "sun time" every day. At my QTH FO-20 goes over
about 1:30 PM and 3:30 PM every day. UO-11, AO-16, DO-17, WO-18, LO-19,
UO-22, KO-25, AO-27, FO-29 etc are also in sun synchronous orbits. KO-23,
RS-12/13, RS-15, though in highly inclined orbits, are not sun synchronous.
[ANS thanks Stacey Mills, W4SM, and Kazu Sakamoto, JJ1WTK, for this report]

FO-29
Voice/CW Mode JA
(Uplink 145.9-146.0 MHz CW/LSB, Downlink 435.8-435.9 MHz CW/USB)
Digital Mode JD
(Uplink 145.85, 145.87, 145.910 MHz FM, Downlink 435.910 MHz FM 9600
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baud BPSK)
Operational.
Jan. 9 07:14z JD1200
Jan .23 08:30z JA
Jan. 30 07:24z JD9600
Feb. 6 08:00z JA
Feb. 20 07:34z Digi-talker
Feb. 27 08:13z JA
[ANS thanks Kazu Sakamoto, JJ1WTK, for this report.]

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SB SAT @ AMSAT $ANS-011.07
WEEKLY SATELLITE REPORT PT 2

HR AMSAT NEWS SERVICE BULLETIN 011.07 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 11, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-011.07

KO-23
(Uplink 145.85, 145.9 MHz FM, Downlink 435.175 MHz FM,
9600 Baud FSK)
KO-23 operating normally.
[ANS thanks Jim Weisenberger, AA7KC, for this report]

KO-25
(Uplink 145.980 MHz FM, Downlink 436.5 MHz FM, 9600 Baud FSK.)
KO-25 operating normally.
[ANS thanks Jim Weisenberger, AA7KC, for this report]

OSCAR-11
(Downlink 145.825 MHz. FM, 1200 Baud PSK. Beacon 2401.500 MHz)
Operating normally.
The operating schedule is unchanged.

ASCII status (210 seconds)
ASCII bulletin (60 seconds)
BINARY SEU (30 seconds)
ASCII TLM (90 seconds)
ASCII WOD (120 seconds)
ASCII bulletin (60 seconds)
BINARY ENG (30 seconds)

There are also additional status blocks after each bulletin is
transmitted, and between ASCII TLM and WOD.

The mode-S beacon is ON, transmitting an unmodulated carrier, but
telemetry indicates that it has partially failed, and delivering half
power. This beacon is a useful test source for those testing mode-S
converters, prior to the launch of P3-D. It is considerably weaker
than DOVE, which should be used for initial testing. Any reports of
reception on 2401 MHz. would be most welcome. Please e-mail
g3cwv@amsat.org.

The 435.025 MHz. beacon is normally OFF. However it can sometimes be
heard when the satellite is being commanded by ground control, ie.
within range of Guildford, UK. When the 435 beacon is transmitting,
the 145 beacon is normally OFF. The data transmitted is mainly
binary.

OSCAR-11 users are welcome to visit my web site. It contains some
software for capturing data, and decoding ASCII telemetry and WOD.
There is an archive of raw data (mainly WOD) for analysis, which is

continually being expanded, as new data is captured. The URL is -

http://www.users.zetnet.co.uk/clivew/

[ANS thanks Clive Wallis, G3CWV, for this information]

AMSAT-OSCAR-16 (PACSAT)
(Uplink 145.9, 145.92, 145.94, 145.86 MHz FM, 1200 bps Manchester FSK
Downlink 437.0513 MHz SSB, 1200 bps RC-BPSK 1200 Baud PSK.
Beacon 2401.1428 MHz.)
Operating normally. AO-16 S band transmitter is off.
uptime is 1210/18:35:21. Time is Sun Jan 11 00:04:32 1998
Bat 1= 1.210 V Bat 2= 1.234 V
Bat 3= 1.258 V Bat 4= 1.254 V Bat 5= 1.225 V
Bat 6= 1.232 V Bat 7= 1.217 V Bat 8= 1.279 V
+10V Bus 10.150 V
RC PSK TX Out 0.798 W
+Y Array Temp -20.575 D
+Z Array Temp -9.683 D

Total Array C= 0.000 Bat Ch Cur=-0.470 Ifb= 0.165 I+10V= 0.332
TX:010C BCR:1E PWRC:59F BT: A WC:25 EDAC:EF

Information about telemetry values and WOD files can be found at
http://www.arrakis.es/~ea1bcu/wod.htm
[ANS thanks Miguel A. Menendez, EA1BCU, for this report]

DO-17(DOVE)
(Downlink 145.825 MHz FM, 1200 Baud AFSK. Beacon 2401.220 MHz)
Operational.
The DOVE S band beacon is on. The frequency is 2401.220 MHz. The 2 meter
transmitter is also on, 145.825 MHz. Telemetry is being sent about every
30 seconds. A scanned image of the Dove's QSL at 425DXNews Web Site:
http://www-dx.deis.unibo.it/htdx/
[ANS thanks Jim White, WD0E, for this update]

WEBERSAT (WO-18)
(Downlink 437.104 MHz SSB, 1200 Baud PSK AX.25)
Bob Argyle, KB7KCL reports that WEBERSAT-OSCAR-18 is gathering and sending
Whole Orbit Data. The PHOTO task is being uploaded and the command team
hopes to have pictures and spectra by about the 12th of December. WO-18's
return to service is suspected to be seasonal in nature. Bob sends thanks
to all those who have sent telemetry received from WO-18.
[ANS thanks Bob Argyle, KB7KCL, and SpaceNews for
this update.]

LUSAT-OSCAR-19
(Uplink 1200 bps Manchester FSK Uplinks: 145.84, 145.86, 145.88,
145.90 MHz FM, Downlink 437.125 MHz SSB, 1200 bps RC-BPSK.)
Operating normally.
uptime is 935/09:26:42. Time is Sat Jan 10 23:31:52 1998
Bat 1= 1.327 V Bat 2= 1.321 V
Bat 3= 1.330 V Bat 4= 1.326 V Bat 5= 1.338 V
Bat 6= 1.333 V Bat 7= 1.334 V Bat 8= 1.319 V
+10V Bus 10.650 V
+Y Array Temp -13.892 D
+Z Array Temp -11.087 D
RC PSK TX Out 0.547 W

Total Array C= 0.012 Bat Ch Cur=-0.296 Ifb= 0.109 I+10V= 0.193
TX:016 BCR:1E PWRC:36E BT:3C WC: 0

General information and telemetry samples can be found at:
http://www.arrakis.es/~ea1bcu/lo19.htm

[ANS thanks Miguel A. Menendez, EA1BCU, for this report]

UO-22
(Uplink: 145.900 or 145.975 MHz FM. Downlink 435.120 MHz FM
9600 Baud FSK)
UO-22 is operating normally.
On January 6th, Chris Jackson, G7UPN/ZL2TPO, Ground station and
Operations Manager of UO-22, said the BBS had been shut for maintenance
and should be opened again after few hours.

[ANS thanks Chris Jackson, G7UPN/ZL2TPO, Ground station and
Operations Manager of UO-22, for this report]

IO-26 (ITAMSAT)
Uplink 145.875, 145.900, 145.925, 145.950 MHz FM, Downlink 435.822 MHz
SSB, 1200 Baud PSK)
No report at this time.

[Please send your Satellite or News reports to ANS Editor BJ Arts,
WT0N, via e-mail, at bjarts@the-bridge.net or to wt0n@amsat.org
or visit WT0N's Homepage http://www.qsl.net/wt0n]

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